Women’s Cardiovascular Health Initiative (WCHI)

A presentation to support the nomination of
Dr. Len Sternberg MD and Dr. Jennifer Price PhD

Canadian Women’s Heart Health Advocacy Award 2016
Women underestimate heart disease threat, survey shows

BY JANE COUTTS
Health Policy Reporter
TORONTO — Women in Canada don’t know what diseases are most likely to kill them, a national survey on women and health has found.

The 1995 Canadian Women’s Health Test, conducted for Women’s College Hospital in Toronto, asked 1,000 women aged 15 and over about their knowledge, behaviour and attitudes toward health.

The survey found that Canadian women over all believe themselves to be healthy, but are misinformed when it comes to the diseases most likely to kill them.

Forty-one per cent of the respondents believed the No. 1 killer was breast cancer, and another 27 per cent thought cancer in general was the chief culprit.

In fact, the primary killer of women is heart disease, which is responsible for 40 per cent of deaths in a given year. Only 16 per cent of those surveyed correctly identified heart disease as the greatest threat to their lives. In comparison, 26.1 per cent die from all forms of cancer.

Susan Phillips, a family physician and co-ordinator of the women’s health program at Queen’s University in Kingston, said she has found the same misconception among her medical students. Research suggests that many physicians are unaware of the extent of the threat heart disease poses to women.

This could have serious implications for women’s health, Dr. Phillips said.

Research shows that women seeking treatment for heart disease are often much sicker than men when diagnosed. This suggests that women, unaware of the threat, may be ignoring symptoms of heart disease.

However, Helen Batty of the Women’s Health Centre at Women’s College Hospital said the positive side of the misconception is that it shows the success of recent efforts to educate the public about the dangers of breast cancer. “If it means more women will go for routine mammography, then that’s a good thing.”

However, she added that women must not be allowed to think that only their husbands need to exercise, eat low-fat foods and quit smoking to stave off heart disease.

The survey also found that, while about half of the respondents reported themselves very satisfied with their doctor, 43 per cent had changed physicians because they weren’t satisfied. Almost one-third felt they had been talked down to by their doctor, and 21 per cent had been told their condition was all psychological.

Sixty per cent were “very satisfied” with doctors who were “much younger” than they, while 48 per cent with doctors who were much older said they were very satisfied.
Women underrate risk of heart attack, study says

The Canadian Press Toronto

Most Canadian women fear breast cancer will kill them, but they are more likely to die from a stroke or a heart attack. That's the finding of a survey of 1,000 women. It was released here Thursday.

Dr. Anna Day, chief of medicine at Women's College Hospital, the hospital that commissioned the survey, had mixed feelings about the survey's conclusion.

"We see women practising a lot of preventive therapy in very directed areas, for example, breast cancer detection... but these women are very wrong in terms of what they believe is killing women," Day said.

Some 41 per cent of the women questioned thought breast cancer was the biggest killer of women; 16 per cent said heart disease and stroke.

In fact, 40 per cent of women die from strokes and heart disease; cancer in all its forms kills 26.1 per cent.

Heart disease and strokes were linked to more than 37,000 deaths of Canadian women in 1992. That's about eight times the number of breast cancer deaths.

"Breast cancer is very scary," said Day. "Women can live with it for many years and so women see a lot of it."

Day also stressed that she expects more women will die from lung cancer than from breast cancer this year.

The hospital released the survey to bolster a fundraising campaign for a research centre on women's health.

Figures from the Medical Research Council indicate in 1993, just $34 million out of $1 billion was spent on research directly related to women's health issues. "That's just not a very great amount for 52 per cent of the population," said Dr. Bette Stephenson.
WCH announces Women’s Cardiovascular Health Initiative in 1996

WOMEN’S COLLEGE HOSPITAL

Canada Trust

AND THE

HEART AND STROKE FOUNDATION OF ONTARIO

Invite you to celebrate the announcement of the Women’s Cardiovascular Health Initiative – Cardiac Rehabilitation Centre for Women

Tuesday, February 13, 1996, 10:30 a.m.
Women’s College Hospital, Main Lobby
Reception following in the Boardroom, 2nd Floor

RSVP by February 8, 1996 to Nicola Mitchell.
Phone (416) 813-4725, Fax (416) 813-4721.

WOMEN’S COLLEGE HOSPITAL IS AFFILIATED WITH THE UNIVERSITY OF TORONTO

Opening Windows on the Future of Women’s Health
Charitable No. 1624811-09-13
WCH announces Women's Cardiovascular Health Initiative in 1996

For Immediate Release

Women's College Hospital and Canada Trust Announce Partnership in Unique Canadian Heart Disease Initiative for Women

Toronto, Ontario, February 13, 1996...Women's College Hospital announced today the establishment of Canada's first women's cardiovascular health initiative. The first phase in this project is the establishment of a cardiac rehabilitation centre for women. It is a partnership between Women's College Hospital and Canada Trust.

This initiative was made possible through a grant of $400,000 by Canada Trust to "Opening Windows on the Future of Women's Health", the $20 million Campaign for Women's College Hospital. The women's cardiovascular health initiative will provide risk identification and modification, health promotion, disease prevention, and care in an ambulatory setting. This program will act as a national vehicle for clinical research, investigation, education, and management of cardiac disease for women.

"Today Canadian women live increasingly stressful lives as employees, entrepreneurs, mothers, friends and community volunteers," says Diane Smith-Sanderson, Corporate Communications, Canada Trust. "As an organization that employs several thousand Canadian women, our support for this innovative research, prevention and rehabilitation initiative stems from a concern for our employees and a strong desire to increase the body of knowledge which can contribute to healthier families in all of Canada's communities."

The women's cardiovascular health initiative will be a multidisciplinary program co-ordinated by the Division of Cardiology at Women's College Hospital. The health care disciplines include: cardiology, family medicine, social services, rehabilitation, cardiovascular disease and pregnancy, rheumatology, endocrinology, nursing and nutrition.

"Cardiovascular disease is the leading cause of death among Canadian women, with over 10,000 myocardial infarction deaths each year," says Dr. Anna Day, Chair Medicine, Women's College Hospital. "This means that prevention and early detection are critical. The cardiovascular health initiative is consistent with the Hospital's mission to be an innovator in developing new models for women-centred health care delivery. It is also an expression of our commitment to effective partnerships with those in both the health care and private sectors."

Women will be admitted to the program through a screening process which will identify risk level. If the screening identifies a woman as negative and at no risk, she may then participate in a lifestyle counseling program; if the screening identifies her as a negative but at high risk, she may consider lifestyle counseling and an exercise program. For women who have positive results in the screening process or for those with known cardiovascular disease, an exercise program specifically designed for their needs will be developed along with appropriate counseling services.

Fact Sheet

Cardiovascular Disease and Women

- Heart disease & stroke is the number one killer of Canadian women and men. 41% of all female deaths and 37% of all male deaths are due to heart disease and stroke.

- After age 45, a woman's risk of death from heart disease increases four-fold.

- Studies show that not only are women less likely to be tested for heart disease, fewer women are referred for aggressive treatments such as bypass surgery and balloon angioplasty.

- Recent studies have shown that women are less likely to enroll in rehabilitation programs after heart attack or surgery. And, for a number of reasons, including family pressures and lack of social support, even those who sign up are more apt to drop out. That is why Women's College began Canada's first Cardiac Rehabilitation Centre for women only. It is estimated that over 1,200 women will visit the centre each year.

- Women develop coronary artery disease as commonly as men, and at a younger age than previously believed, according to a study by Dr. Leonard Sternberg, Head of WCH's Division of Cardiology.

- Many family and emergency physicians are not aware that women experiencing heart attack and stroke present with different symptoms. This results in many wrong diagnoses and delayed treatment.
Heart disease is the #1 killer of women.
“Only 10-15% of female patients will take part in cardiac rehab”

Cardiac rehab centre to meet women’s needs

BY NANCY DEUTSCH

TORONTO — Although women have almost as many heart attacks as men, only 10-15% of female patients will take part in a cardiac rehabilitation program.

In an effort to make rehabilitation a reality for women, Women’s College Hospital here is establishing a cardiac rehabilitation centre solely for them. It is believed to be the first such centre in North America.

“It may be that doctors are not referring women [for rehabilitation],” mused Dr. Len Sternberg, director of cardiology at the hospital.

He said many physicians still fail to realize that “women have almost half the heart attacks now.”

Furthermore, 41,000 Canadian women die every year from cardiovascular disease. One woman in nine aged 45-65 is living with cardiovascular disease, and this jumps to one in three after age 65, he added.

A lack of spousal support may be another reason that women are not accessing rehab programs, said Dr. Sternberg.

“When a man has a heart attack, the woman is there,” he said. She typically drives him to his medical appointments and for rehabilitation, but most men fail to do the same for their wives with heart disease, he said.

Dr. Heather Arthur (PhD), an associate professor in the faculty of health sciences at McMaster University in Hamilton said the rehabilitation programs that are available do not meet the needs of women.

Dr. Arthur conducted intensive interviews with 20 women who suffered heart attacks within a six-month period.

“Less than half were referred for cardiac rehab,” she said. A few self-referred.

Most women who went to cardiac rehabilitation programs found they were vastly outnumbered by men, and were uncomfortable. “They said they were conspicuous and felt out of place.” One woman was asked for a date while she was working out. “It was a very male environment and she quit after only going twice.”

Most physicians haven’t given much thought to what form of rehabilitation might be best for women. “I have talked with lots of cardiologists in my area. My sense is they are not really in touch with the needs of women,” said Dr. Arthur.

Obese women may be too embarrassed to exercise in front of men, Dr. Sternberg suggested. Women may also not like the types of exercise men prefer.
Innovations in Patient Care

On the Leading Edge in the Fight against Cardiac Disease

Women’s College Hospital is home to Canada’s first women’s cardiovascular health initiative thanks to the support of Canada Trust. The first phase of this project is the establishment of a women-focused cardiac rehabilitation centre.

“Cardiovascular disease is the leading cause of death among Canadian women,” says Dr. Anna Day, Chief of Medicine at Women’s College Hospital. “This means that prevention and early detection are critical. The women’s cardiovascular health initiative is consistent with the Hospital’s mission to be an innovator in developing new models for women-centred health care delivery.”

The initiative will act as a national vehicle for clinical research, investigation, education, and management of cardiac disease for women.

Heart disease and stroke are linked to more than 37,000 deaths of Canadian women each year. Cardiovascular disease kills twice as many women as all types of cancers that kill women put together.” (Heart and Stroke Foundation)

The new Canada Trust Cardiac Rehabilitation Centre for Women was officially opened September 27. Made possible through a generous $400,000 gift from Canada Trust, the Centre is for patients like Patricia Smith (above, centre) who is getting exercise hints from Clinical Nurse Specialist Jennifer Price and Head of Cardiology Dr. Len Sternberg.
In 2007 WCHI celebrates 10 years advocating women and heart health – Wear RED

WOMEN’S CARDIOVASCULAR HEALTH INITIATIVE

A Healthy Heart... A Healthy Life

with two staff in the gym. Along with the core exercise program, participants receive vital education and support to meet their individual needs. Women have multiple roles in their lives, through work, as caregivers, and in pursuit of leisure activities. Wherever they are in their lifecycle, our focus is to rehabilitate them so they can resume these activities to the best of their capabilities.”

For graduates of the program, the results are phenomenal, from lower blood pressure to increased activity tolerance. And there’s an 85% adherence rate regarding exercise, diet and healthy lifestyles. “Emphasis is placed on postprogram adherence,” adds Price. “We provide home assessment as well as train community recreation centres in our program modalities. Many of our participants are new, grandmother – who just want to pick up their new grandchild and offer supportive care. It’s rewarding to see each participant progress to meet her goals. Every result is unique, just as every woman is.”

Interested participants need only ask their doctor for a referral to receive an assessment. With approximately 150 spaces a year, availability is limited. New equipment is needed and money for adding a female cardiologist is on the list of expansion priorities. For more information, visit our website at www.womenscollegehospital.ca or call: 416-323-6106.

HEART BEAT BALL

More than 350 people gathered on the evening of February 16th at the Four Seasons Hotel, Yorkville, for the first Women’s College Hospital Heart Beat Ball. The evening was held to raise awareness of cardiovascular disease in women, and to celebrate the tenth anniversary of the Women’s Cardiovascular Health Initiative (WCHI), Canada’s first and only cardiac rehabilitation and primary prevention program for women.

Guests at the colour-filled evening dined to the melodic sounds of pianist Matthew Ostro, and danced to music provided by the GTA Swing Band. Guest speaker, Stephen Lewis, motivated the crowd with his words about the importance of women’s health on a global scale, holding up the Women’s Cardiovascular Health Initiative as the perfect example of woman-focused healthcare.

“The first Heart Beat Ball was a tremendous success,” said Faith Delos-Reyes, Program Coordinator and committee member. “This event not only raised awareness of the importance of women’s heart health, the money raised will go a long way to increase women’s access to rehab and to fund important research. It was also great to see both women and men dressed in RED to show their support!”

Mark Your Calendar!

HEART BEAT BALL

Friday, February 16, 2007

Four Seasons Hotel, Toronto

Proceeds to benefit Women’s Cardiovascular Health Initiative.

For ticket information, call 416-323-6400 ext. 4883
In 2007 WCHI celebrates 10 years advocating women and heart health – Wear RED

A Message from the Mayor

It gives me great pleasure to extend greetings and warm wishes to everyone attending the Heart Beat Ball, a fundraising gala for Women’s Cardiovascular Health Initiative (WCHI) at Women’s College Hospital.

WCHI is Canada’s only cardiac prevention and rehabilitation program designed exclusively for women. It addresses the need for women to have easy access to intervention programs by offering a unique and comprehensive cardiac rehabilitation and primary prevention program. This initiative reflects the hospital’s deep commitment to leadership in women’s health.

Featuring guest speaker and renowned cardiologist, Dr. Martha Gulati, the Heart Beat Ball promises not only to be a wonderful evening, but also an enlightening one. Your presence here this evening is an indication of your compassion and demonstrates your understanding that a healthy and vibrant society is largely dependent upon the active participation of its members.

On behalf of Toronto City Council, I extend my heartfelt appreciation for your support of this event that will raise funds to sustain and expand the Women’s Cardiovascular Health Initiative. Please accept my best wishes for an enjoyable evening and great success.

Yours truly,

Mayor David Miller

City Hall • 100 Queen Street West • 2nd Floor • Toronto, Ontario M5H 2N2
Telephone: 416-397-CITY • Fax: 416-698-3687 • E-mail: mayor_miller@toronto.ca
I am pleased to send greetings to all those at the Heart Beat Ball, in support of the Women’s Cardiovascular Health Initiative (WCHI).

The staff, volunteers and supporters of the WCHI can be proud of what they have done for women across this country. Because of their efforts, women can count on faster access to services, the very latest in medical advancements and quality care from knowledgeable medical professionals. But the fight against heart disease is by no means over. This ball is an opportunity to pull together to ensure that the WCHI has the resources it needs to continue keeping women’s health at the forefront of our health agenda.

Stephen Lewis’ compelling global views on women’s health issues will highlight an evening that will serve to strengthen the hopes and convictions of women across the country. I wish everyone an enjoyable ball.

February 2007

Michaëlle Jean

MINISTER’S GREETINGS

It is my pleasure to congratulate everyone who has worked so hard to organize the first-ever Heart Beat Ball. And I want thank all of you in attendance for your support of the Women’s Cardiovascular Health Initiative at Women’s College Hospital.

This inaugural event is distinguished by the presence of Stephen Lewis, the former UN Secretary General’s Special Envoy for HIV/AIDS, who is speaking on the status of women’s health around the world. I applaud your efforts to raise awareness of how women can fight and beat heart disease, as well as raise money for Canada’s only cardiac rehabilitation program for women. Located at Women’s College Hospital, the program provides services specifically to women, both those with cardiac disease and those at risk of developing it.

Your generosity in support of this event is an important step in helping to improve women’s access to cardiac care. And tonight’s event is a wonderful way for the community to express its support and raise awareness of the impact cardiovascular disease has on women in this country.

Thank you all for your commitment to women’s health. I wish each and every one of you an enjoyable evening.

Sincerely,

George Smitherman
Minister
Philanthropy in action

Women's Cardiovascular Health Initiative / Ontario Shores Centre for Mental Health Services

Health innovators address unique community needs

Thirteen years ago, the ground-breaking Women's Cardiovascular Health Initiative took flight at the Women's College Hospital in Toronto – an independent, ambulatory-care facility known for its focus on women's health.

“We were the first and only program in Canada to provide prevention and rehabilitation treatment for heart disease solely for women,” says cardiologist and unit medical director Leonard Sternberg. “We started at a time when heart attack was still considered a man's disease.”

“Often women themselves still aren’t aware that they are six times more likely to die of a heart attack than from breast cancer.”

Over the years, the heart program has been building awareness and supporting women in creating better health. The program recognizes women's differing symptoms, treatments, preferences and values – removing attendance barriers whenever possible.

Participants have access to assessment, exercise, monitoring, education, smoking cessation and weight-loss programs. The six-month rehabilitation offers a safe, customized program twice a week for 90 minutes. The three-month prevention program is similarly designed for managing risk factors such as obesity, high blood pressure or diabetes.

Serving some 200 annually, the clinic's 85 per cent adherence rate indicates how much women, even exercise neophytes, enjoy the activity and support from each other and the multidisciplinary team.

More than a decade later, another phase has begun with the hiring of a research director and upcoming equipment upgrades. That’s where charitable giving through the foundation and activities such as the Heart Beat Ball lend vital support, says Dr. Sternberg. “Because it can’t be done without money.”

In Whitby, Ontario Shores Centre for Mental Health Services recognized the relationship between physical and mental health and came up with the metabolic and weight management clinic.

Statistics indicate that people with serious mental illness have a 20 per cent shorter lifespan than the general population. Consequently, the clinic formulated a solution focusing on reducing health risks and on education for people with severe mental illness who have conditions such as diabetes and obesity.

Sheila Neuberger, vice president of Clinical Services says, “Patients tell us that their progress in losing weight and staying healthy has helped on their path to better mental health and quality of life.”

“We saw about 300 patients the first year. Since then, we’ve expanded because of increasing community demand and interest from as far away as Vancouver. We have a resource manual currently underway for other hospitals.”

The clinic offers health assessments and screening, motivational counselling and exercise programs.

Expansion requests and great patient feedback are indicators of the program's success, she adds. In addition the clinic won the prestigious 3M Health Care Quality Team Award for 2009 from the Canadian College of Health Service Executives.

Ontario Shores Foundation for Mental Health executive director Jennifer Clark says, “Donations provide seed funding to help these great programs get off the ground. My hospital colleagues have many innovative ideas to help people get better and maintain their best health, and the new foundation will help bring these ideas to fruition.”

To help new organizations create healthier communities, visit womencollegehospital.ca and ontarioshoresfoundation.ca.
Gender No Boundary

Heart Disease

National Post
Published: Thursday, February 19, 2009

For 20 years, Dr. Leonard Sternberg has been fighting to get a message across. His goal has been to make physicians, health care professionals and, indeed, all Canadians abandon the myths and embrace the reality of women and heart disease.

"Heart disease is not a predominantly male disease," says Dr. Sternberg, director of cardiology at Toronto's Women's College Hospital and director of its ground-breaking Women's Cardiovascular Heart Initiative program. "In fact, if you look at the statistics, women are more likely than men to die of a heart attack or a stroke."

Indeed, cancer and heart disease regularly account for half of all female deaths. But the statistics do not stop there, he adds. At Women's College Hospital, Dr. Sternberg and his team of seven cardiologists and support professionals have not only recognized the dangers heart disease poses to women but have been in the forefront of prevention and treatment.

Heart disease affects both men and women

January 29, 2009

PAUL IRISH
STAFF REPORTER

The misconception that heart attacks are solely a man's malady is being put to rest, but not quick enough for some.

Dr. Leonard Sternberg, chief of cardiology at Toronto's Women's College Hospital, says it's not good news that women are now experiencing more cardiovascular disease than ever before, but that at least medicine is painfully aware of this troubling fact.

"It was indeed a 'man's disease' for so long that we now believe a lot of women came to emergency rooms quite sick but weren't experiencing the telltale severe chest pain," says Sternberg, who is also director of the hospital's cardiovascular health initiative and cardiac program. "The fact is, no matter how vague the symptoms may be, it's very unlikely a woman will be released from an emergency room (these days) until the attending staff is certain it's not a heart attack."

Enzyme tests and electrocardiograms are the order of the day when it's difficult to diagnose vague symptoms that can be ascribed to myriad maladies.

But many physicians say that although there has been some progress in closing the gender gap there are still discrepancies.

Canadian Heart and Stroke Foundation research indicates that, compared to a man, a woman's risk of dying following a cardiovascular event, such as a heart attack or stroke, is higher.

The research also indicates the reasons for this are unclear and that contributing factors may be gender bias. This, Sternberg explains, may simply come from past practice.
Innovation continues in 2012 – targeting young women and heart health
Research indicates that cardiovascular rehabilitation reduces the risk of dying by up to 29 per cent among people with cardiovascular disease, says Dr. Jennifer Price (centre, with patients), an advance practice nurse at Women’s College Hospital. SUPPLIED

WOMEN’S COLLEGE HOSPITAL

Groundbreaking programs target women’s health

But cardiovascular disease is now recognized as an equal-opportunity killer. More women die of heart disease than all cancers combined and, what’s more, a growing number of younger women are dying from the disease.

Despite the significant improvements in overall cardiovascular care, women continue to face different challenges with heart disease.

"We talk to women about all aspects of their life, including the importance of exercise and a healthy diet. But we also talk about the importance of having a healthy diet," says Dr. Price. "We talk to women about all aspects of their life, including the importance of exercise and a healthy diet. But we also talk about the importance of having a healthy diet."

Yet studies have found that women are still referred to cardiac rehab programs less often. They also tend to be less compliant when they are referred, continuing instead to put the needs of their families and workplaces ahead of their health.

By tailoring programs to women’s needs, the hospital’s Cardiovascular Health Initiative helps them implement life-saving behavioural changes. “We talk to women about all aspects of their life, including the importance of exercise and a healthy diet,” says Dr. Price. “But we also talk about the importance of having a healthy relationship with your health-care provider and taking the medication that your doctor prescribes for you.”

The women meet in small groups of 10 where they can receive support from each other and share information, such as where they walk and the special recipes they’ve tried. They also receive professional support to help them learn concepts such as how to exercise at a safe but active level on the days they aren’t at the gym.

“For women with cardiovascular disease, participation in a cardiac rehabilitation program is associated with many benefits,” says Dr. Harvey. “These include improvements in physical functioning, quality of life and overall risk factors, and even illness and death from heart disease.”

Dr. Price suggests that all women find out their cardiovascular disease risk factors. “Talk to your health-care provider about your risks, including your blood pressure and cholesterol values.”
Heart attack survivor Sue Williams with WCH advance practice nurse, Jennifer Price. Women’s College Hospital created North America’s first cardiac prevention and rehabilitation program designed exclusively for women.

Your **giving heart** gives women good **health and confidence**

Three nights each week, 30 women gather in the prayer room at one of Toronto’s oldest mosques. Although it’s normally a space to worship, on these nights they can be found doing lunges, push-ups, planks and crunches – pausing only for the Salat al-Maghrib sunset prayer.

They are participants in a Women’s College Hospital research project seeking to combat an increased risk of diabetes and heart disease among South Asian Muslim women. The project brings exercise to the heart of the women’s community - their mosque.

**The impact on their lives has been profound. As one woman says, “I feel stronger, more confident, more motivated. And if I’m happy, I can keep my family happy, and everyone is happy and healthy.”**

Overseen by Drs. Ananya Tina Banerjee and Jennifer Price, researchers with Women’s College Hospital’s Cardiac Rehabilitation Program, the classes are led by 24-year-old volunteer Maha Zawi, a young leader within the Muslim community and recent kinesiology graduate. Quickly gaining the trust of the women and the mosque’s all-male board of directors, Maha helped the classes evolve into a sustainable program that will continue indefinitely following the completion of the six-month research project.

“The mosque is a safe space for these women,” she says. “Because they’re able to exercise in a comfortable and familiar place, it’s become a lifestyle for them now.”

**Your generosity makes extraordinary new initiatives like the mosque-based exercise project possible.**

Thank you for changing the lives of women and their families by giving your heart to help theirs.

To learn more about the different ways you can continue to support Women’s College Hospital, visit [www.wchf.ca](http://www.wchf.ca) or contact Fiona Bedlington at fiona.bedlington@wchospital.ca or 416-323-6323 ext. 2319.
Significant research contributions and publications


Chiamvimonvat V, **Sternberg L**. Coronary Artery Disease in Women. Canadian Family Physician. December (1998); 44: 2709 - 2717.


**Sternberg L.** Special CV Rehab Program Designed for Women – Program reported to produce higher compliance rates and improvements in exercise capacity. The Chronicle of Cardiovascular & Internal Medicine. (2000). P15.


Significant research contributions and publications


Thank you for the opportunity to recognize two most deserving individuals for the Canadian Women’s Heart Health Advocacy Award 2016